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The Effect of Digital Transformation on Employee Performance with Readiness for Change as a Moderating Variable at The Public Works and Spatial Planning Office of Central Kalimantan Province

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Abstract

Digital transformation has become an increasingly important requirement for public-sector organizations; however, previous studies have reported inconsistent findings regarding its effects on employee performance. This study aimed to examine the effect of digital transformation on employee performance and investigate the moderating role of employees' readiness for change at the Public Works and Spatial Planning Office (DPUPR) of Central Kalimantan Province, Indonesia. An explanatory quantitative research design was employed. Data were collected using a five-point Likert-scale questionnaire administered to 164 respondents from a target sample of 167 employees, selected through purposive sampling from a population of 288 employees. The data were analyzed using partial least squares structural equation modeling (PLS-SEM). The measurement model satisfied the established criteria for convergent validity, discriminant validity, and reliability. The results indicated that digital transformation had a positive and statistically significant effect on employee performance ($\beta = 0.251$; $t = 3.271$; $p = 0.001$). Furthermore, readiness for change significantly and positively moderated the relationship between digital transformation and employee performance ($\beta = 0.177$; $t = 2.728$; $p = 0.006$), indicating that greater readiness for change strengthened this association. The structural model explained 59.5% of the variance in employee performance ($R^2 = 0.595$) and demonstrated substantial predictive relevance ($Q^2 = 0.572$). These findings suggest that improving employee performance through digital transformation requires not only technological development and enhanced digital competencies but also organizational initiatives that strengthen employees' readiness to embrace change. Therefore, public-sector organizations should integrate digital capability development with change management strategies to maximize the potential benefits of digital transformation for employee performance.

INTRODUCTION

The Public Works and Spatial Planning Office (DPUPR) of Central Kalimantan Province is a regional government agency responsible for assisting the governor in administering government affairs related to public works and spatial planning (Nursidi et al., 2025; Oktaviani & Surya, 2026; Sipayung, 2022). The agency formulates technical policies, develops strategic plans, and oversees the implementation and supervision of regional infrastructure development. Its responsibilities encompass the construction and maintenance of provincial roads and bridges, water resource management, including irrigation and flood control, regional spatial planning, construction services development, and the provision of essential infrastructure to

support regional connectivity and economic growth. Under Central Kalimantan Governor Regulation No. 37 of 2022, the organizational structure comprises the Head of Office, the Secretariat, and technical divisions responsible for Water Resources, Highways (Bina Marga), Human Settlements (Cipta Karya), Construction Services, and Spatial Planning, as well as the Construction Materials Laboratory Technical Implementation Unit and Functional Position Groups. Through these responsibilities, DPUPR plays a strategic role in promoting planned, sustainable, and public service-oriented regional development.

The transition toward technology-based work systems, digital data management, and the adoption of digital applications for construction management and spatial planning requires civil servants to demonstrate greater adaptability, innovation, and productivity. Digital transformation has the potential to improve the effectiveness, transparency, and accountability of infrastructure planning, implementation, and supervision. However, its implementation presents several challenges, including disparities in employees' digital competencies, limited technological literacy, inadequate digital infrastructure, and resistance to changes in established organizational practices. Consequently, strengthening human resource capabilities through continuous professional development, technological adaptation, collaboration, and innovation has become a strategic organizational priority. The agency's financial performance, as reflected in its budget absorption rates, has demonstrated a positive trend, as presented in Table 1.

Table 1. Budget Realization of the DPUPR of Central Kalimantan Province, 2022–2024

Year	Budget Ceiling (IDR)	Realization (IDR)	Absorption (%)
2022	1,078,649,041,122	1,009,513,467,671	93.59
2023	1,284,495,891,186	1,194,660,136,959	93.01
2024	2,088,355,751,851	1,991,133,082,437	95.34

Source: Budget realization data of DPUPR of Central Kalimantan Province.

Budget absorption during the 2022–2024 period remained consistently above 93%, indicating a relatively high level of budget utilization. The annual increase in budget allocations reflected the government's continued prioritization of infrastructure development, while stable absorption rates suggested relatively effective budget execution and project management. Nevertheless, several challenges persisted, including regional fiscal constraints, multiyear infrastructure projects, and the extensive geographical area served by the agency. Employee performance is a key indicator of organizational success in achieving strategic objectives (Munadil et al., 2024). Optimal employee performance reflects the effectiveness and efficiency with which individuals fulfill their responsibilities, ultimately contributing to overall organizational productivity (Ardian, 2020). In public-sector organizations, improving employee performance is essential for delivering data-driven, timely, accurate, and responsive public services (Vrchota et al., 2020). Both classical and contemporary literature on human resource management and organizational behavior emphasizes that employee performance is influenced by individual abilities, attitudes, and organizational support (Dessler, 2012; Gibson et al., 2017; Hasibuan, 2014; Hidayani, 2016; Kreitner & Cassidy, 2012; Robbins & Judge, 2013; Sedarmayanti, 2017).

Digital transformation has been identified as an important factor potentially influencing employee performance (Denmamode & Panchoo, 2024). It involves integrating information

and communication technologies into organizational processes to improve operational efficiency (Rodríguez-Abitia & Bribiesca-Correa, 2021), accelerate service delivery, and enhance data accuracy and transparency (Andriole, 2018). Organizations capable of adapting rapidly to technological advancements may achieve greater operational efficiency and service quality (Faisol et al., 2024). Digital transformation is a dynamic organizational process involving strategic changes in structures, capabilities, and operational practices that may improve organizational performance (He et al., 2023). It also represents a strategic response to rapidly changing environments, making technological adaptation increasingly important for organizational sustainability and competitiveness (Denmamode & Panchoo, 2024). Previous research has examined digital transformation in various contexts, including its conceptualization in government organizations (Mergel et al., 2019), the role of leadership in facilitating transformation (Alawiah & Tukiran, 2024; Porfírio et al., 2021), the digital competencies required for successful implementation (Hoberg et al., 2017), approaches to measuring digital transformation (Kontić & Vidicki, 2018), its application in small and medium-sized enterprises (SMEs) (Martinelli & Tunisini, 2024; Rialti & Zollo, 2023; Stich et al., 2020) and higher education institutions (Bygstad et al., 2022), its contribution to social value creation (Tracey et al., 2018), and its implications for human resource management and employee performance (Hayati et al., 2024; Wahyudi et al., 2023).

Human resource development also plays a strategic role in strengthening individual competencies and organizational capabilities (Syahiroh et al., 2024). Through training, continuing education, career development programs, and competency enhancement initiatives, employees can acquire the knowledge and skills required to perform their responsibilities effectively (Cintia et al., 2024). Effective human resource development not only improves technical competencies but may also strengthen organizational commitment, employee loyalty, and work motivation (Nurrohman et al., 2019). Previous studies examining training and human resource development across public- and private-sector organizations have identified associations between these practices and improvements in employee competence, productivity, and performance (Azis, 2021; Baiti et al., 2021; Bowo & Hendro, 2023; Ismael et al., 2021; Cekada, 2010; Darsana, 2023; Elia, 2019; Erman, 2020; Hasanah et al., 2024; Krisnahadi & Septika, 2021; Mangundjaya, 2024; Mohd et al., 2020; Monalis et al., 2020; Napitupulu, 2020; Nugroho & Paradifa, 2020; Ramafrizal et al., 2022; Sejati et al., 2022; Sunarto, 2020; Syukron et al., 2022). Furthermore, human resource development has been recognized as an important mechanism for facilitating organizational change (Herlina et al., 2022).

Previous studies have reported inconsistent findings regarding the relationship between digital transformation and employee performance. Adisaksana (2022) investigated the relationships among digital transformation, business model innovation, creativity, and the performance of micro, small, and medium-sized enterprises (MSMEs), with competitive advantage serving as an intervening variable, and found that digital transformation did not significantly affect MSME performance. Similarly, Oktafien et al. (2023) examined the effects of human resource digital transformation, emotional intelligence, and career development on employee performance, with organizational culture serving as a mediating variable, within the Bandung Regency Government. Their findings indicated that human resource digital transformation did not have a statistically significant effect on employee performance. In

contrast, Firmansyah and Napitupulu (2024), in their study of employees at Mercure Hotel Jakarta Kota, reported a positive and statistically significant effect of digital transformation on employee performance. Likewise, Rukani and Ratnasari (2024) identified a positive and statistically significant relationship between digital transformation and performance, with dynamic innovation capability serving as a mediating variable. These contrasting findings highlight the need for further investigation into the conditions under which digital transformation contributes to employee performance, particularly within public-sector organizations. A summary of these previous findings is presented in Table 2.

Table 2. Summary of the Research Gap

No	Researcher (Year)	Research Focus	Method	Findings	Identified Gap
1	Adisaksana (2022)	Digital transformation, business innovation models, and creativity on MSME performance	Quantitative	Digital transformation does not affect performance	Not all aspects of digital transformation directly affect MSME performance
2	Oktafien et al. (2023)	HR digital transformation, emotional intelligence, career development → employee performance	Quantitative	HRDT does not affect performance; organizational culture as mediator	HR digital transformation requires the support of a strong organizational culture
3	Firmansyah & Napitupulu (2024)	Employee engagement, digital transformation, and talent management on employee performance	Quantitative	Digital transformation has a positive and significant effect on performance	The hotel setting shows successful implementation of digital transformation
4	Rukani & Ratnasari (2024)	Digital transformation and collaborative innovation on employee performance (mediated by capability)	Quantitative	Digital transformation has a positive and significant effect on performance	Collaborative innovation and innovation capability strengthen the effect of digital transformation

Source: Compiled from previous studies (2026).

These inconsistencies suggest that the relationship between digital transformation and employee performance may vary depending on organizational context, job characteristics, and other influencing factors. This study builds on the findings of Firmansyah and Napitupulu (2024) while acknowledging the contrasting results reported in previous research. Some studies found no statistically significant effect of digital transformation on performance (Adisaksana, 2022; Oktafien et al., 2023), whereas others identified positive and statistically significant effects (Rukani & Ratnasari, 2024; Firmansyah & Napitupulu, 2024). Riduan and Firdaus (2024) further emphasized the roles of organizational culture, digital competence, and business strategy in shaping the relationship between digital transformation and organizational performance.

The novelty of this study lies in examining readiness for change as a moderating variable in the relationship between digital transformation and employee performance, particularly

within a provincial government agency responsible for public works and spatial planning. Positive attitudes toward technology may facilitate faster adaptation and improvements in work productivity and efficiency (Siregar et al., 2023), while readiness for change has been identified as an important factor in optimizing the outcomes of organizational initiatives (Ahad et al., 2021). Technological advancements and human resource capacity development are more likely to produce favorable performance outcomes when employees demonstrate openness to change, work engagement, and a commitment to organizational objectives (Porotu'o et al., 2021). Previous research on individual readiness for change has examined its antecedents, dimensions, and organizational implications (Al-Maamari et al., 2018; Desplaces, 2005; Haffar et al., 2019; Lizar et al., 2015; Madsen et al., 2006; Vakola, 2014). Related studies have also explored the relationships among employee attitudes, organizational justice, learning organizations, leadership, and performance (Ju et al., 2021; Miao et al., 2021; Patarru' et al., 2020; Retnowati & Darmawan, 2022; Smith & Shields, 2013; Utami et al., 2016). Furthermore, the broader organizational change management literature highlights the importance of change agents, effective communication, leadership, employee behavior, and institutional context in facilitating successful organizational transformation (Anderson & Ackerman Anderson, 2001; Arbaugh, 2002; Battilana & Casciaro, 2012; Brauns, 2015; Cameron & Green, 2009; Dorogaia, 2022; Gilstrap & Hart, 2020; Kettinger & Grover, 1995; Laužikas & Miliute, 2019; Lunenburg, 2010a, 2010b; Schell, 2019; Waeger & Weber, 2019).

Based on this background, the central research question concerns the extent to which digital transformation influences employee performance and whether employees' readiness for change moderates this relationship. The urgency of this investigation arises from the need for public-sector organizations, particularly the Public Works and Spatial Planning Office (DPUPR) of Central Kalimantan Province, to identify factors that may strengthen the relationship between digital transformation and employee performance amid increasing budget allocations and increasingly complex infrastructure development challenges. Accordingly, this study aimed to empirically examine (1) the effect of digital transformation on employee performance and (2) the moderating effect of readiness for change on this relationship. Two hypotheses were formulated: H1, digital transformation has a positive and statistically significant effect on employee performance; and H2, readiness for change positively moderates the relationship between digital transformation and employee performance, such that the relationship becomes stronger at higher levels of readiness for change. Theoretically, this study was expected to contribute to the literature on human resource management, organizational change, and digital transformation in the public sector by clarifying the moderating role of employee readiness for change. Practically, the findings were intended to provide an empirical basis for DPUPR of Central Kalimantan Province to develop strategies for improving employee performance through digital transformation initiatives supported by efforts to strengthen employees' readiness, adaptability, and positive attitudes toward organizational change.

METHOD

This study employed an explanatory quantitative research design to examine the relationships among digital transformation, employee performance, and readiness for change through hypothesis testing. Primary data were collected through questionnaires and

observations, including respondents' demographic characteristics and perceptions of the research variables. Secondary data were obtained from scholarly journals, academic books, and organizational documents covering employee numbers, institutional policies, organizational structure, legal foundations, and organizational responsibilities. Data collection involved a literature review, observations, and the direct distribution of questionnaires to respondents, who were given three days to complete and return them.

The study population comprised 288 employees of the Public Works and Spatial Planning Office (DPUPR) of Central Kalimantan Province. The target sample size was calculated using Slovin's formula with a 5% margin of error, yielding approximately 167 respondents. Participants were selected using purposive sampling based on the following inclusion criteria: (1) civil servants or contract employees actively involved in DPUPR operations; (2) a minimum of one year of employment; (3) direct involvement in performing the duties and responsibilities of their respective work units; and (4) willingness to complete the questionnaire. The research variables and their corresponding indicators are presented in Table 3. All questionnaire items were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Table 3. Research Variables and Indicators

No	Variable and Definition	Indicators	Source
1	Employee performance (Y): the ability of civil servants to carry out planning, development, and infrastructure management tasks professionally, productively, and adaptively to technological and public-service demands in order to achieve regional development targets effectively and accountably	1) Quality of work 2) Quantity of work 3) Timeliness	Mathis & Jackson (2012)
2	Digital transformation (X): the process of changing the work systems of civil servants through the use of digital technology, data, and service innovation to improve performance, efficiency, transparency, and the quality of public services adaptively and sustainably	1) Digital mindset 2) Digital practices 3) Digital talent management and development 4) Data access and integration	Marx et al. (2021)
3	Employee readiness for change (Z): the cognitive, emotional, and behavioral readiness of employees to accept, support, and actively participate in organizational change in order to achieve more effective goals	1) Belief in change 2) Attitude toward change 3) Individual intention to change	Lizar et al. (2015)

Source: Compiled from the literature (2026).

Descriptive statistical analysis was conducted to summarize respondents' assessments of each research variable. Responses were measured using a five-point Likert scale, and mean scores were classified into three categories: low (1.00–2.33), moderate (2.34–3.66), and high (3.67–5.00). Inferential analysis was performed using partial least squares structural equation modeling (PLS-SEM) with SmartPLS software. The measurement (outer) model was evaluated for convergent validity using indicator loadings greater than 0.70 and average variance extracted (AVE) values greater than 0.50. Discriminant validity was assessed using the Fornell–Larcker criterion, heterotrait–monotrait ratio (HTMT) values below 0.90, and cross-

loadings. Internal consistency reliability was evaluated using composite reliability and Cronbach's alpha, with values greater than 0.70 considered acceptable (Hair et al., 2020). Multicollinearity was assessed using variance inflation factor (VIF) values below 5. The structural (inner) model was evaluated using the coefficient of determination (R^2), with values of approximately 0.19, 0.33, and 0.67 interpreted as weak, moderate, and substantial explanatory power, respectively. Predictive relevance was assessed using the Stone–Geisser Q^2 statistic, with values greater than zero indicating predictive relevance and values of 0.02, 0.15, and 0.35 serving as reference thresholds for small, medium, and large predictive relevance, respectively (Hair, 2021). Hypotheses were tested using a bootstrapping procedure at a 5% significance level. For two-tailed tests, relationships were considered statistically significant when the absolute t-statistic was at least 1.96 and the corresponding p-value was below 0.05.

RESULTS AND DISCUSSION

Respondent Characteristics

The study targeted 167 respondents, and 164 questionnaires were returned complete and usable, giving a response rate of 98.20% (164/167 × 100%). This very high participation indicates good data quality, and the difference of three respondents from the target does not significantly affect the representativeness of the sample, so 164 respondents were used in all stages of analysis. The respondents' characteristics by gender, age, education, and length of service are presented in Table 4.

Table 4. Respondent Characteristics (n = 164)

Characteristic	Category	Frequency	Percentage (%)
Gender	Male	112	68.3
	Female	52	31.7
Age	21–30 years	33	20.1
	31–40 years	54	32.9
	41–50 years	51	31.1
	51–60 years	26	15.9
Last education	Senior high school/vocational	35	21.3
	Diploma	32	19.5
	Bachelor's degree	87	53.0
	Master's degree	10	6.1
Length of service	0–10 years	29	17.7
	11–20 years	53	32.3
	21–30 years	60	36.6
	> 30 years	22	13.4

Source: Primary data processed (2026).

Respondents were dominated by men (68.3%), which is understandable given that DPUPR is a technical agency whose work is closely related to infrastructure, technical administration, and a relatively dynamic work environment, while the presence of women (31.7%) shows their involvement and enriches organizational perspectives, particularly in administrative accuracy, communication, and work relations. Most respondents were aged 31–40 years (32.9%) and 41–50 years (31.1%), indicating that the majority were of productive age and professionally mature, so performance was assessed from the perspectives of both

employees developing their careers and senior employees with long experience. More than half held a bachelor's degree (53.0%), suggesting adequate academic capacity to understand policies, procedures, and technological change. The largest group had 21–30 years of service (36.6%), meaning that most respondents understood the bureaucratic system and work patterns in depth, which strengthens the quality of their assessments.

Descriptive Analysis of Research Variables

The descriptive statistics of the three variables are presented in Table 5. All indicators fall within the high category (3.67–5.00).

Table 5. Descriptive Statistics of Research Variables

Code	Indicator	N	Min	Max	Mean
Digital transformation (X)					
X1-1	Digital mindset	164	2	5	3.87
X1-2	Digital practices	164	2	5	3.74
X1-3	Digital talent management and development	164	2	5	3.75
X1-4	Data access and integration	164	1	5	3.91
	Variable mean				**3.84**
Employee performance (Y)					
Y1-1	Quality of work	164	2	5	3.92
Y1-2	Quantity of work	164	2	5	4.04
Y1-3	Timeliness	164	2	5	3.94
	Variable mean				**3.97**
Employee readiness for change (Z)					
Z-1	Belief in change	164	1	5	3.89
Z-2	Attitude toward change	164	2	5	4.05
Z-3	Individual intention to change	164	1	5	4.03
	Variable mean				**3.99**

Source: Primary data processed (2026).

Digital transformation has an overall mean of 3.84 (high), indicating that respondents considered digital transformation in the organization to be running well. The highest indicator is data access and integration (3.91), meaning that the organization is considered able to provide and integrate data to support work processes, while the lowest is digital practices (3.74), which, although still high, shows that the use of digital technology in daily work can be further improved. Employee performance has an overall mean of 3.97 (high). The highest indicator is quantity of work (4.04), showing that employees can complete their workload according to organizational demands, while the lowest is quality of work (3.92), implying that accuracy, conformity to standards, and the quality of work results can still be improved. Employee readiness for change has an overall mean of 3.99 (high). The highest indicator is attitude toward change (4.05), meaning that change is seen not as an obstacle but as a need to improve work effectiveness, whereas the lowest is belief in change (3.89), suggesting that some employees still need socialization, mentoring, training, or managerial support to be more confident in the success of change.

Measurement Model Evaluation (Outer Model)

Data were analyzed with PLS using SmartPLS. The measurement model shows how the manifest variables represent the latent variables and was evaluated for validity and reliability. The outer model is shown in Figure 1.

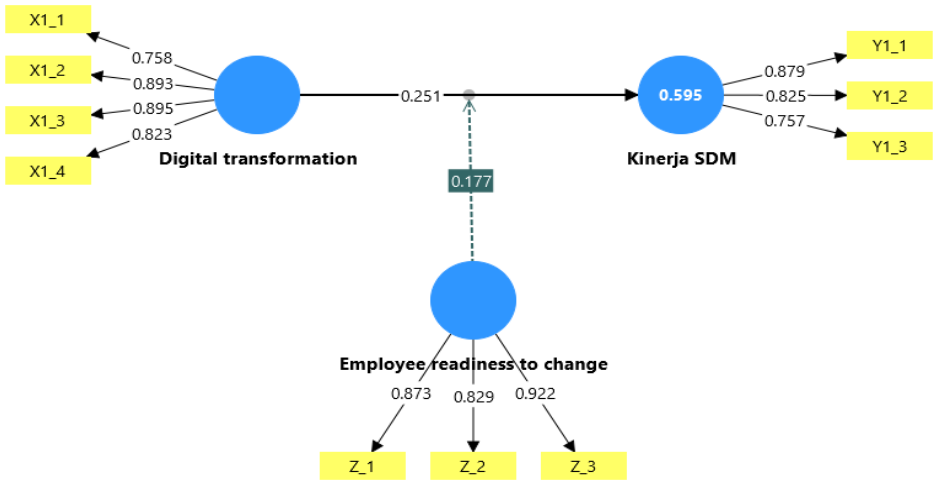


Figure 1. Outer Model of the Moderated PLS-SEM

Source: Data processed with SmartPLS (2026). Kinerja SDM = employee performance.

Table 6 presents the outer loadings of all indicators. All loadings exceed 0.70, so every indicator validly reflects its construct. For digital transformation, the strongest indicator is digital talent management and development (0.895) and the weakest is digital mindset (0.758); for employee performance, the strongest is quality of work (0.879) and the weakest is timeliness (0.757); and for readiness for change, the strongest is individual intention to change (0.922).

Table 6. Outer Loadings of Research Indicators

Variable	Indicator	Outer Loading	Remark
Digital transformation (X)	Digital mindset	0.758	Valid
	Digital practices	0.893	Valid
	Digital talent management and development	0.895	Valid
	Data access and integration	0.823	Valid
Employee performance (Y)	Quality of work	0.879	Valid
	Quantity of work	0.825	Valid
	Timeliness	0.757	Valid
Readiness for change (Z)	Belief in change	0.873	Valid
	Attitude toward change	0.829	Valid
	Individual intention to change	0.922	Valid

Source: Primary data processed (2026).

Discriminant validity was tested with the Fornell–Larcker criterion, HTMT, and cross loadings. Table 7 shows that the square root of the AVE of each construct (diagonal values) is greater than its correlations with the other constructs, so the Fornell–Larcker criterion is met.

Table 7. Fornell–Larcker Criterion

Construct	Digital transformation	Readiness for change	Employee performance
Digital transformation	0.844		
Readiness for change	−0.114	0.875	
Employee performance	0.139	0.714	0.822

Note: Diagonal values are the square root of the AVE. Source: Primary data processed (2026).

Table 8 shows that all HTMT values are below 0.90, so discriminant validity based on HTMT is accepted.

Table 8. Heterotrait–Monotrait Ratio (HTMT)

Construct Pair	HTMT
Readiness for change ↔ Digital transformation	0.147
Employee performance ↔ Digital transformation	0.171
Employee performance ↔ Readiness for change	0.878

Source: Primary data processed (2026).

The cross loadings in Table 9 show that each indicator correlates more strongly with its own construct than with other constructs, so all constructs meet the discriminant validity criterion.

Table 9. Cross Loadings

Indicator	Digital transformation	Readiness for change	Employee performance
X1_1	0.758	−0.042	0.118
X1_2	0.893	−0.160	0.092
X1_3	0.895	−0.135	0.102
X1_4	0.823	−0.068	0.141
Y1_1	0.144	0.633	0.879
Y1_2	0.051	0.640	0.825
Y1_3	0.157	0.468	0.757
Z_1	−0.164	0.873	0.610
Z_2	−0.006	0.829	0.579
Z_3	−0.121	0.922	0.681

Source: Primary data processed (2026).

Reliability was assessed through Cronbach's alpha, composite reliability, and AVE (Table 10). All constructs have Cronbach's alpha and composite reliability values above 0.70 and AVE values above 0.50, so the instruments for digital transformation, readiness for change, and employee performance are highly reliable. Combined with the convergent and discriminant validity results, all indicators are valid and reliable measures of their latent variables.

Table 10. Reliability Test Results

Construct	Cronbach's Alpha	Composite Reliability (rho_c)	AVE
Digital transformation	0.866	0.908	0.713
Readiness for change	0.847	0.908	0.766
Employee performance	0.760	0.862	0.676

Source: Primary data processed (2026).

Multicollinearity was tested before hypothesis testing using inner VIF values. Table 11 shows that no VIF exceeds 5, so there is no multicollinearity problem in the model.

Table 11. Multicollinearity Test (Inner VIF)

Path	VIF
Digital transformation → Employee performance	1.011
Readiness for change → Employee performance	1.124
Readiness for change × Digital transformation → Employee performance	1.119

Source: Primary data processed (2026).

Goodness of Fit

The goodness of fit of the structural model was evaluated using R-square and Q-square (Table 12). The R-square of employee performance is 0.595, meaning that 59.5% of the variation in employee performance is explained by digital transformation and readiness for change, while the remaining 40.5% is influenced by other variables outside this study; this value lies between 0.33 and 0.67 and thus falls in the moderate category. The Q-square value of 0.572 is greater than 0.35, indicating that the model has strong predictive relevance and that the parameter estimates are consistent with the observed values.

Table 12. R-Square and Q-Square Values

Endogenous Variable	R-square	Q^2 predict
Employee performance	0.595	0.572

Source: Primary data processed (2026).

Structural Model Evaluation and Hypothesis Testing

Hypotheses were tested using the t-statistics of the structural model with a t-table value of 1.96 at the 5% significance level. The inner model is shown in Figure 2, and the path coefficients are presented in Table 13.

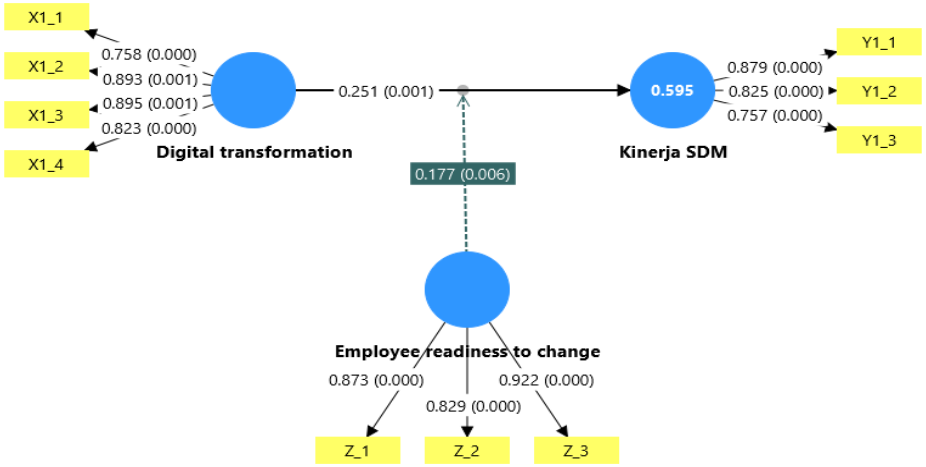


Figure 2. Inner Model of the Moderated PLS-SEM

Source: Data processed with SmartPLS (2026). Values in parentheses are p-values; Kinerja SDM = employee performance.

Table 13. Path Coefficients

Path	Original Sample (O)	Sample Mean (M)	SD	T Statistics	P Values
Digital transformation → Employee performance	0.251	0.239	0.077	3.271	0.001
Readiness for change × Digital transformation → Employee performance	0.177	0.169	0.065	2.728	0.006

Source: Data processed with SmartPLS (2026).

The first hypothesis (H1) states that the better the digital transformation, the better the employee performance. The path coefficient of digital transformation on employee performance is 0.251, with a t-count of 3.271 > 1.96 and p = 0.001 < 0.05. Digital transformation therefore has a positive and significant effect on employee performance, so H1

is accepted. The second hypothesis (H2) states that employee readiness for change moderates the relationship between digital transformation and employee performance. The coefficient of the interaction term is 0.177, with a t-count of 2.728 > 1.96 and p = 0.006 < 0.05. Readiness for change therefore significantly strengthens the effect of digital transformation on employee performance, so H2 is accepted.

The Effect of Digital Transformation on Employee Performance

This study shows that digital transformation has a positive and significant effect on employee performance: the better the digital transformation, the higher the employee performance. This result supports Riduan and Firdaus (2024), who found that digital transformation directly improves performance, as well as Firmansyah and Napitupulu (2024) and Rukani and Ratnasari (2024), while differing from Adisaksana (2022) and Oktafien et al. (2023). The four aspects of digital transformation, namely digital mindset, digital practices, digital talent management and development, and data access and integration, proved able to improve performance as reflected in quality of work, quantity of work, and timeliness.

Digital transformation has its highest outer loading on digital talent management and development, while employee performance has its highest loading on quality of work. This indicates that the success of digital transformation is largely determined by the organization's ability to prepare, develop, and manage human resources with adequate digital competence, and that the quality of employees' work is strongly influenced by their digital competence. Organizations that provide digital training, improve technological literacy, strengthen adaptability to digital systems, and support technology-based competence development encourage employees to work more effectively, accurately, innovatively, and responsively, so that work is completed to higher quality standards with fewer errors and faster task completion.

Conversely, digital transformation has its lowest outer loading on digital mindset, and employee performance has its lowest loading on timeliness. Even so, the results still show a positive relationship between them: employees with a digital mindset tend to be more open to technology, more adaptive to modern work systems, and better able to use digital applications to manage priorities, accelerate task completion, reduce administrative delays, and improve coordination. A weak digital mindset, by contrast, can make employees less responsive to technological change, so that work becomes slower and timeliness is less optimal. The organization therefore needs to strengthen its digital work culture through digital transformation training, improved technological literacy, and the formation of an adaptive mindset so that timeliness can improve sustainably.

The Moderating Role of Readiness for Change

The results show that employee readiness for change strengthens the relationship between digital transformation and employee performance. This finding supports earlier evidence that positive attitudes toward technology support faster adaptation and increased productivity and work efficiency (Siregar et al., 2023), and it is in line with the view that readiness for change is a key factor in optimizing the impact of organizational initiatives (Ahad et al., 2021). Readiness for change has its highest outer loading on individual intention to change, indicating that employees' readiness is mainly reflected in their personal willingness and commitment to accept and implement organizational change.

The higher the individual intention to change, the stronger the effect of digital talent development on the quality of employees' work. Digital transformation thus depends not only on the availability of technology or digital competence programs but also on employees' psychological readiness to accept change. Employees who are highly willing to adapt tend to learn new technologies more easily, are more open to digital work systems, and integrate digital competence into daily work more quickly, which ultimately improves the quality of their work because they become more effective, accurate, innovative, and responsive. Readiness for change therefore acts as a reinforcing factor that amplifies the effectiveness of digital transformation on performance, so the organization should not focus only on infrastructure and digital talent, but also build a culture of change, increase employee involvement, communicate change clearly, and create a work environment that supports digital adaptation.

Although digital mindset, timeliness, and attitude toward change are the indicators with relatively lower contributions in their respective constructs, all indicators still represent their constructs adequately. The results also suggest that the stronger the intention to accept and carry out change, the more a positive attitude toward organizational change is formed, which in turn strengthens the effect of a digital mindset on timeliness. Employees who are ready to change and willing to adapt to technological developments more easily build an adaptive digital mindset and complete work faster, more responsively, and on schedule; without such psychological readiness, digital transformation tends to be unable to optimize timeliness. The success of digital transformation therefore depends not only on the use of technology but also on employees' mental readiness and attitude toward organizational change.

CONCLUSION

Based on the analysis of data from 164 employees of the Public Works and Spatial Planning Office (DPUPR) of Central Kalimantan Province using partial least squares structural equation modeling (PLS-SEM), this study concluded that digital transformation had a positive and statistically significant effect on employee performance ($\beta = 0.251$; $t = 3.271$; $p = 0.001$). This finding indicated that higher levels of digital transformation were associated with better employee performance. Digital talent management and development emerged as the strongest indicator of digital transformation, while work quality was the most prominent indicator of employee performance. Furthermore, readiness for change positively and significantly moderated the relationship between digital transformation and employee performance (interaction coefficient $\beta = 0.177$; $t = 2.728$; $p = 0.006$), indicating that the positive association became stronger as employees' readiness for change increased. These findings suggest that the potential benefits of digital transformation depend not only on technological infrastructure and competency development but also on employees' willingness and readiness to embrace organizational change, particularly their individual intentions to change. The structural model explained 59.5% of the variance in employee performance ($R^2 = 0.595$) and demonstrated substantial predictive relevance ($Q^2 = 0.572$), while the remaining 40.5% of the variance was not explained by the model. Accordingly, DPUPR of Central Kalimantan Province should strengthen digital talent development through targeted training and improved digital literacy while fostering readiness for change through effective communication and active employee participation. Particular attention should be given to strengthening employees' digital mindsets

and attitudes toward change, which exhibited the weakest indicator contributions, to support improvements in work efficiency and the timely completion of assigned tasks. Future research should incorporate additional factors potentially associated with employee performance and expand the investigation to other government agencies using larger and more diverse samples to improve the generalizability of the findings.

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CONFLICT OF INTEREST

The author declares that there is no conflict of interest, whether personal, commercial, or financial, that could affect the conduct and results of this research.

AUTHOR CONTRIBUTION

Maudi Gerry Geraldy contributed to the research design, data collection and processing, system development, analysis of results, and preparation of the manuscript.

GENERATIVE ARTIFICIAL INTELLIGENCE USAGE STATEMENT

In preparing this article, the author used generative artificial intelligence (AI) as a tool to refine language, organize the structure of the writing, and correct grammar. The use of AI was limited and remained under the author's supervision. All data, analyses, interpretations, and scientific substance in this article have been checked and verified by the author, who is fully responsible for the accuracy, originality, and final content of the manuscript.

REFERENCES

Nursidi, D., Kholiq, A., Raysid, F. A., Aziz, A., & Syam, R. M. (2025). Participatory Paradigm of Licensingin the Implementation of Spatial Planning Development Policy in Indonesia: A Proposal. *Journal of Cultural Analysis and Social Change*, 2204–2215.

Oktaviani, A. N. D., & Surya, I. (2026). Analysis of the Implementation of Bureaucratic Reform in Improving the Work Efficiency of the Secretariat at Dinas PUPR and PERA of East Kalimantan Province. *Jurnal Kajian Dan Penelitian Umum*, *4*(3), 182–191.

Sipayung, B. (2022). Spatial planning policy for the new state capital in Penajam Paser Utara Regency and Kutai Kartanegara Regency in East Kalimantan Province and their problems. *Awang Long Law Review*, *4*(2), 367–373.

Adisaksana, H. (2022). The effect of digital transformation, business innovation models, and creativity on MSME performance with competitive advantage as intervening variable. *Indonesian Interdisciplinary Journal of Sharia Economics, 5*(2).

Ahad, R., Mustafa, M. Z., Mohamad, S., Abdullah, N. H. S., & Nordin, M. N. (2021). Work attitude, organizational commitment and emotional intelligence of Malaysian vocational college teachers. *Journal of Technical Education and Training, 13*(1), 15–21. https://doi.org/10.30880/jtet.2021.13.01.002

Al-Maamari, Q. A., Kassim, R. M., Raju, V., Al-Tahitah, A., Ameen, A. A., & Abdulrab, M. (2018). Factors affecting individual readiness for change: A conceptual framework. *International Journal of Management and Human Science, 2*(1).

Alawiah, E. T., & Tukiran, M. (2024). Digital leadership and digital transformation: Systematic literature review. *International Journal of Social and Management Studies*. http://www.ijosmas.org

Anderson, D., & Ackerman Anderson, L. S. (2001). *Beyond Change Management*. Jossey-Bass/Pfeiffer.

Andriole, S. J. (2018). Skills and Competencies for Digital Transformation. *IT Professional, 20*(6), 78–81.

Arbaugh, J. B. (2002). Beyond Change Management: Advanced Strategies for Today's Transformational Leaders (Book). *Academy of Management Learning & Education, 1*(2). https://doi.org/10.5465/AMLE.2002.8509421

Ardian, R. Y. (2020). Manajemen Sumber Daya Manusia. *Tsaqofah: Jurnal Pendidikan Islam, 4*(2).

Azis, M. A. (2021). Evaluasi Penugasan Anggota Polri di Luar Struktur Organisasi Kepolisian Dalam Mewujudkan Sdm Polri yang Unggul. *Junal Litbang Polri, 24*(2), 64–84.

Baiti, T., Andayani, N., & Hirawati, H. (2021). Pengaruh Pelatihan Dan Pengembangan Sdm Terhadap Kinerja Karyawan PT Pos Indonesia Cabang Kota Magelang. *Jurnal Ilmiah Manajemen Ubhara, 3*(2).

Battilana, J., & Casciaro, T. (2012). Change agents, networks, and institutions: A contingency theory of organizational change. *Academy of Management Journal, 55*(2), 381–398. https://doi.org/10.5465/amj.2009.0891

Bowo, A. B. P., & Hendro, J. (2023). Analisis pengaruh pengembangan SDM, lingkungan kerja, komitmen organisasi dan motivasi terhadap kinerja karyawan: Literatur review. *JEMSI (Jurnal Ekonomi, Manajemen, dan Akuntansi)*. https://journal.lembagakita.org/jemsi/article/view/895

Brauns, M. (2015). The management of change in a changing environment –to change or not to change? *Corporate Board: Role, Duties and Composition, 11*(3), 37–42. https://doi.org/10.22495/cbv11i3art4

Bygstad, B., Øvrelid, E., Ludvigsen, S., & Dæhlen, M. (2022). From dual digitalization to digital learning space: Exploring the digital transformation of higher education. *Computers and Education, 182*. https://doi.org/10.1016/j.compedu.2022.104463

Cameron, E., & Green, M. (2009). *Making sense of change management: a complete guide to the models, tools & techniques of organizational change*. Kogan Page.

Cekada, T. L. (2010). Training needs assessment: Understanding what employees need to know. *Professional Safety*, 28–35.

Cintia, V. R. D., Ayu, D. P., Putri, N. C., Citra, K. S., Bintang, A. T., & Malika, D. R. (2024). Pelatihan Dan Pengembangan Sumber Daya Manusia Dalam Organisasi di Era Globalisasi Digital. *Bisnis Dan Digital (JIMaKeBiDi), 1*(2).

Darsana, I. M. (2023). Pelatihan pengembangan SDM bagi karyawan di Guest House Lokasari Ubud, Gianyar-Bali. *SIKEMAS: Publikasi Ilmiah Bidang Pengabdian kepada Masyarakat*. https://www.publish.ojs-indonesia.com/index.php/SIKEMAS/article/view/1264

Denmamode, L., & Panchoo, S. (2024). Digital transformation: A roadmap to leverage businesses for SMEs. *Journal of Business and Enterprise Development*. https://journal.ucc.edu.gh/index.php/jobed/article/view/1507

Desplaces, D. (2005). *A multilevel approach to individual readiness to change*.

Dessler, G. (2012). *Human resource management (2nd ed.)*. John Wiley & Sons.

Dorogaia, I. (2022). Change Management In The Digital Age: The Perspectives Of Development. *Eastern European Journal Of Regional Studies, 8*(1). https://doi.org/10.53486/2537-6179.8-1.04

Elia, F. D. (2019). Training and performance in the transition period. *Journal of Human Sport and Exercise, 14*(Proc2). https://doi.org/10.14198/jhse.2019.14.Proc2.15

Erman. (2020). *Pentingnya pelatihan bagi aparatur untuk meningkatkan kompetensi PNS*.

Faisol, F., Winarko, S. P., & Aliami, S. (2024). The digital transformation: Exploring innovation's impact on SME competency and sustainability in the digital age. In *Proceedings of the Business Innovation and Engineering Conference (BISTIC 2024)*. Atlantis Press. https://www.atlantis-press.com/proceedings/bistic-24/126004927

Firmansyah, R., & Napitupulu, E. V. (2024). The influence of employee engagement, digital transformation and talent management on the performance of Mercure Hotel Jakarta Kota employees. *Jurnal Ekonomi Perusahaan, 31*(2), 119–130. https://doi.org/10.46806/jep.v31i2.1197

Gibson, J. L., Ivancevich, J. M., & Donnelly, J. H. (2017). *Organisasi: Perilaku, struktur, proses* (8th ed.). Binarupa Aksara.

Gilstrap, J. B., & Hart, T. A. (2020). How employee behaviors effect organizational change and stability. *Journal of Business Research, 109*, 120–131. https://doi.org/10.1016/j.jbusres.2019.11.049

Haffar, M., Al-Karaghouli, W., Irani, Z., Djebarni, R., & Gbadamosi, G. (2019). The influence of individual readiness for change dimensions on quality management implementation in Algerian manufacturing organisations. *International Journal of Production Economics, 207*, 247-260. https://doi.org/10.1016/j.ijpe.2016.08.024

Hair, J. F. (2021). Next-generation prediction metrics for composite-based PLS-SEM. *Industrial Management and Data Systems, 121*(1), 5–11. https://doi.org/10.1108/IMDS-08-2020-0505

Hair, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research, 109*, 101–110. https://doi.org/10.1016/j.jbusres.2019.11.069

Hasanah, H., Gebina, F., Chafshah, A., et al. (2024). Analisis pelatihan dan pengembangan karyawan. *Jurnal Ilmiah Manajemen, Kewirausahaan, Bisnis dan Digital*. https://ejournal.arimbi.or.id/index.php/JIMaKeBiDi/article/view/121

Hasibuan, M. S. P. (2014). *Manajemen: Dasar, pengertian, dan masalah* (Rev. ed.). Bumi Aksara.

Hayati, F. A., Sularmi, L., & Rahmadini, S. (2024). Pengaruh Digitalisasi Dan Kepemimpinan Transformasional Terhadap Kinerja Karyawan Bagian Operasional Pada Pt Bank Capital Indonesia. *Scientific Journal Of Reflection: Economic, Accounting, Management and Business, 7*(2).

He, Z., Huang, H., Choi, H., & Bilgihan, A. (2023). Building organizational resilience with digital transformation. *Journal of Service Management, 34*(1), 147–171. https://doi.org/10.1108/JOSM-06-2021-0216

Herlina, E., Tukiran, M., Yusnita, N., et al. (2022). Peran pengembangan sumber daya manusia sebagai agen perubahan. *Jurnal Sosial dan Teknologi*. https://sostech.greenvest.co.id/index.php/sostech/article/view/346

Hidayani, S. (2016). Manajemen Sumber Daya Manusia. *Manajemen Sumber Daya Manusia, 2008*(Apr-2016), 1–86.

Hoberg, P., Krcmar, H., Oswald, G., & Welz, B. (2017). *Skills for Digital Transformation*. Technical University of Munich, Chair for Information Systems, Study.

Ismael, N. B., Othman, B. J., Gardi, B., Hamza, P. A., Sorguli, S., Aziz, H. M., Ahmed, S. A., Sabir, B. Y., Ali, B. J., & Anwar, G. (2021). The Role of Training and Development on Organizational effectiveness. *International Journal of Engineering, Business and Management (IJEBM), 5*(3), 2456–8678. https://doi.org/10.22161/ijebm.5.3

Ju, B., Lee, Y., Park, S., & Yoon, S. W. (2021). A Meta-Analytic Review of the Relationship Between Learning Organization and Organizational Performance and Employee Attitudes: Using the Dimensions of Learning Organization Questionnaire. *Human Resource Development Review, 20*(2), 207–251. https://doi.org/10.1177/1534484320987363

Kettinger, W. J., & Grover, V. (1995). Special Section: Toward a Theory of Business Process Change Management. *Journal of Management Information Systems, 12*(1), 9–30. https://doi.org/10.1080/07421222.1995.11518068

Kontić, L., & Vidicki, Đ. (2018). Strategy for Digital Organization: Testing a Measurement Tool for Digital Transformation. *STRATEGIC MANAGEMENT, 23*(1).

Kreitner, R., & Cassidy, C. (2012). *Management (12th ed.)*. Cengage Learning.

Krisnahadi, T., & Septika, B. H. (2021). Implementasi Strategi Pengembangan Sumber Daya Manusia Dalam Peningkatan Produktivitas Karyawan Pada Era Revolusi Industri 4.0. *JISIP (Jurnal Ilmu Sosial Dan Pendidikan), 5*(2), 554–562. http://ejournal.mandalanursa.org/index.php/JISIP/index

Laužikas, M., & Miliute, A. (2019). Communication efficiency and effectiveness within strategic management of change: Insights into civil service organizations. *Journal of Security and Sustainability Issues, 8*(4), 617–630. https://doi.org/10.9770/jssi.2019.8.4(6)

Lizar, A. A., Mangundjaya, W. L. H., & Rachmawan, A. (2015). The Role Of Psychological Capital And Psychological Empowerment On Individual Readiness For Change. *The Journal of Developing Areas, 49*(5), 343–344.

Lunenburg, F. C. (2010a). Organizational development: Implementing planned change. *International Journal of Management, Business, and Administration, 13*(1), 1–9.

Lunenburg, F. C. (2010b). Managing change: The role of the change agent. *International Journal of Management, Business and Administration, 13*(1), 1–6.

Madsen, S. R., John, C. R., & Miller, D. (2006). Influential Factors in Individual Readiness for Change. *Journal of Business & Management, 12*(2), 93–112.

Mangundjaya, W. L. (2024). Metode Asessment Center sebagai sarana pengembangan Sumber Daya Manusia melalui identifikasi potensi dan kompetensi SDM. *Journal on Education, 06*(04), 12550.

Martinelli, E. M., & Tunisini, A. (2024). Digitalization in Italian SMEs: The transformation of marketing channels. *Italian Journal of Marketing*. https://doi.org/10.1007/s43039-024-00099-2

Marx, C., de Paula, D., & Uebernickel, F. (2021). Dynamic capabilities & digital transformation: A quantitative study on how to gain a competitive advantage in the digital age. In *Proceedings of the 29th European Conference on Information Systems (ECIS 2021)* (pp. 1–18). https://aisel.aisnet.org/ecis2021_rp/58

Mathis, R. L., & Jackson, J. H. (2012). *Manajemen sumber daya manusia* (J. Sadeli & B. P. Hie, Trans.). Salemba Empat.

Mergel, I., Edelmann, N., & Haug, N. (2019). Defining digital transformation: Results from expert interviews. *Government Information Quarterly, 36*(4). https://doi.org/10.1016/j.giq.2019.06.002

Miao, R., Bozionelos, N., Zhou, W., & Newman, A. (2021). High-performance work systems and key employee attitudes: the roles of psychological capital and an interactional justice climate. *International Journal of Human Resource Management, 32*(2), 443–477. https://doi.org/10.1080/09585192.2019.1710722

Mohd, I. H., Julan, J., Hisham, T. B., & Besar, T. (2020). Strategic Training And Development: The Impact On Employees' Performance. *Journal of International Business, Economics and Entrepreneurship, 5*(2).

Monalis, E., Rumawas, W., & Tumbel, T. M. (2020). Pengembangan sumber daya manusia dan kepuasan kerja terhadap kinerja karyawan. *Productivity, 1*(3).

Munadil, R., Mumang, A. B., & Arifin, I. (2024). Pengembangan sumber daya manusia: Kunci keberhasilan pembangunan jangka panjang. *Jurnal Edukasi dan Sosial*. https://journal.ininnawaparaedu.com/edusos/article/view/60

Napitupulu, R. H. M. (2020). The Relationship Between Education, Training, and Civil Servant Lecturers Competency. *Journal of Business Management Review, 1*(2), 121–132. https://doi.org/10.47153/jbmr12.202020

Nugroho, M. N., & Paradifa, R. (2020). Pengaruh Pelatihan, Motivasi, Kompetensi Terhadap Kinerja Sumber Daya Manusia. *JRMSI - Jurnal Riset Manajemen Sains Indonesia, 11*(1), 149–168. https://doi.org/10.21009/jrmsi.011.1.08

Nurrohman, A. T., Sunaryo, H., & Basalamah, M. R. (2019). Analisis pengembangan sumber daya manusia, kerjasama tim dan kreativitas terhadap kinerja karyawan PT. Mavens Mitra Perkasa Malang. *e-Jurnal Riset Manajemen*. https://jim.unisma.ac.id/index.php/jrm/article/view/8371

Oktafien, S., Kowara, Y., Endang, C., & Anggiani, S. (2023). Pengaruh Human Resource Digital Transformation, Emotional Intelligence dan Career Development terhadap Employee Performance Pegawai ASN Kecamatan di Lingkungan Pemerintah Kabupaten Bandung yang Dimediasi oleh Organizational Culture. *JIIP (Jurnal Ilmiah Ilmu Pendidikan), 6*(6). http://Jiip.stkipyapisdompu.ac.id

Patarru', F., Nursalam, N., & Mar'ah HAS, E. M. (2020). Efektivitas Kepemimpinan Transformasional Terhadap Peningkatan Kinerja Perawat. *Jurnal Penelitian Kesehatan "SUARA FORIKES" (Journal of Health Research "Forikes Voice"), 11*(4), 381. https://doi.org/10.33846/sf11411

Porfírio, J. A., Carrilho, T., Felício, J. A., & Jardim, J. (2021). Leadership characteristics and digital transformation. *Journal of Business Research, 124*, 610–619. https://doi.org/10.1016/j.jbusres.2020.10.058

Porotu'o, A. C., Kairupan, B. H. R., & Wahongan, G. J. P. (2021). Pengaruh Motivasi Kerja Dan Sikap Profesi Terhadap Kinerja Perawat Di Pelayanan Rawat Inap Rumah Sakit Umum Gmim Pancaran Kasih Manado Melalui Kepuasan Kerja Sebagai Variabel Intervening. *JURNAL ILMIAH MANAJEMEN BISNIS DAN INOVASI UNIVERSITAS SAM RATULANGI, 8*(2), 576–580.

Ramafrizal, Y., Yogaswara, M., & Sopiansah, V. A. (2022). Pengaruh pelatihan, pengembangan dan pengalaman kerja terhadap kompetensi guru (Survey pada guru di SMAN 1 Bandung). *Oikos: Jurnal Kajian Pendidikan Ekonomi dan Ilmu Ekonomi, 6*(2), 226–232.

Retnowati, E., & Darmawan, D. (2022). Peningkatan Kinerja Karyawan Ditinjau Dari Sikap Kerja Dan Penegakan Keadilan Organisasi. *ARBITRASE: Journal of Economics and Accounting, 3*(2), 219–226. https://doi.org/10.47065/arbitrase.v3i2.490

Rialti, R., & Zollo, L. (2023). *Digital transformation of SME marketing strategies*. Springer. https://doi.org/10.1007/978-3-031-33646-1

Riduan, M., & Firdaus, M. R. (2024). Transformasi Digital Dan Kinerja: Kajian Peran Budaya Organisasi, Kompetensi Digital, Strategi Bisnis Di Bisnis Telekomunikasi. *JURNAL MANEKSI, 13*(1).

Robbins, S. P., & Judge, T. A. (2013). *Organizational behavior*. Pearson Education Limited.

Rodríguez-Abitia, G., & Bribiesca-Correa, G. (2021). Assessing digital transformation in universities. *Future Internet, 13*(2), 1–17. https://doi.org/10.3390/fi13020052

Rukani, S. D., & Ratnasari, S. D. (2024). Mediation of dynamic innovation capability on digital transformation and employee collaborative innovation on employee performance. *Indonesian Interdisciplinary Journal of Sharia Economics, 7*(2).

Schell, W. J. (2019). Leadership and change management. In *Traffic safety culture* (pp. 191–218). Emerald Publishing Limited. https://doi.org/10.1108/978-1-78714-617-420191013

Sedarmayanti. (2017). *Manajemen sumber daya manusia*. Refika Aditama.

Sejati, S., Zainal, V. R., et al. (2022). Pengembangan, pelatihan, dan pendidikan dan pentingnya pelatihan karyawan perusahaan di masa pandemi Covid-19. *Comserva: Jurnal Penelitian dan Pengabdian Masyarakat*. https://comserva.publikasiindonesia.id/index.php/comserva/article/view/392

Siregar, N. M., Harahap, N. J., & Halim, A. (2023). Pengaruh Kepuasan Kerja, Keterlibatan Kerja, Sikap Kerja dan Komitmen Terhadap Kinerja Pegawai PUDAM Tirta Bina Kabupaten Labuhanbatu. *JEMSI (Jurnal Ekonomi, Manajemen, Dan Akuntansi), 9*(3), 554–564. https://doi.org/10.35870/jemsi.v9i3.1096

Smith, D. B., & Shields, J. (2013). Factors Related to Social Service Workers' Job Satisfaction: Revisiting Herzberg's Motivation to Work. *Administration in Social Work, 37*(2), 189–198. https://doi.org/10.1080/03643107.2012.673217

Stich, V., Zeller, V., Hicking, J., & Kraut, A. (2020). Measures for a successful digital transformation of SMEs. *Procedia CIRP, 93*, 286–291. https://doi.org/10.1016/j.procir.2020.03.023

Sunarto, A. (2020). Pengembangan Sumber Daya Manusia dengan Berbasis Inovasi untuk Menghadapi Revolusi Industri 4.0. *Jurnal Ilmiah MEA (Manajemen, Ekonomi, & Akuntansi), 4*(2), 397–407. http://www.journal.stiemb.ac.id/index.php/mea/article/view/504

Syahiroh, N., Fatekhah, S. A. P., et al. (2024). Konsep pengembangan sumber daya manusia berbasis kompetensi, bakat dan ketahanan dalam organisasi. *Jurnal Budi Pekerti Agama Islam*. https://journal.aripafi.or.id/index.php/jbpai/article/view/434

Syukron, M., Hendriani, S., & Maulida, Y. (2022). Pengaruh Pengembangan Sumber Daya Manusia dan Disiplin Kerja Terhadap Kinerja Pegawai Melalui Motivasi Kerja Sebagai Variabel Intervening Pada Dinas Pariwisata Provinsi Riau. *Jurnal Daya Saing, 8*(2).

Tracey, P., Cavotta, V., & Phillips, N. (2018). Creating Social Value through Digital Transformation. *Academy of Management Global Proceedings, 94*.

Utami, L., Hapsari, S., & Widyandana. (2016). Hubungan Antara Sikap Dan Perilaku Kolaborasi Dan Praktik Kolaborasi Interprofesional Di Ruang Rawat Inap Rumah Sakit Panti Rapih. *Jurnal Keperawatan Muhammadiyah, 1*(1).

Vakola, M. (2014). What's in there for me? Individual readiness to change and the perceived impact of organizational change. *Leadership and Organization Development Journal, 35*(3), 195–209. https://doi.org/10.1108/LODJ-05-2012-0064

Vrchota, J., Mařiková, M., Řehoř, P., Rolínek, L., & Toušek, R. (2020). Human resources readiness for industry 4.0. *Journal of Open Innovation: Technology, Market, and Complexity, 6*(1). https://doi.org/10.3390/joitmc6010003

Waeger, D., & Weber, K. (2019). Institutional complexity and organizational change: An open polity perspective. *Academy of Management Review, 44*(2), 336–359. https://doi.org/10.5465/amr.2014.0405

Wahyudi, A., Assyamiri, M. B. T., Aluf, W. A., et al. (2023). Dampak transformasi era digital terhadap manajemen sumber daya manusia. *Jurnal Bintang Manajemen*. https://www.ijconf.org/index.php/jubima/article/view/2222